

Claim Amendments

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

Claim 1. (Currently Amended) A method of cosmetically treating the hair, skin or nails, comprising:

applying to the hair, skin or nails an aqueous polymer dispersion of a cross-linked cationic polymer prepared by free radically polymerizing in a water-in-water emulsion:

- a) 1 to 99.9 % by weight, based on the total amount of monomers from which the polymer is prepared, of at least one cationic or cationogenic vinyl group-containing monomer selected from the group consisting of N-vinylimidazoles, diallylamines, dialkylaminoalkyl(meth)acrylamides and dialkylaminoalkyl(meth)acrylates and dialkylaminoalkyl (meth)acrylates,
- b) 0 to 99 % by weight, based on the total amount of monomers from which the polymer is prepared, of at least one neutral or basic water-soluble monomer different from monomer (a),
- c) 0 to 50 % by weight, based on the total amount of monomers from which the polymer is prepared, of at least one unsaturated acid or one unsaturated anhydride,

d) 0 to 50 % by weight of at least one free-radically copolymerizable monomer different from (a), (b) or (c); and

e) 0.05 to 10 % by weight, based on the total amount of monomers from which the polymer is prepared, of at least one crosslinking monomer having at least two ethylenically unsaturated, nonconjugated double bonds,

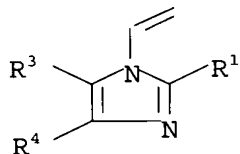
wherein the amounts a) to e) are selected such that the resulting polymer, optionally after quaternization or protonation, has an overall positive charge in water in the presence of:

f) 1 to 100 % by weight of the saturation amount in the reaction medium of one or more organic or inorganic salts, whereby 100 % by weight saturation is indicative of that amount of salt which just dissolves in the aqueous medium of the monomer ingredients at the reaction temperature within the range of 20 to 100° C without precipitation, and

g) 0.1 to 30 % by weight, based on the total weight of the dispersion, of at least one water-soluble colloid with a composition different from a) to e), and subsequently at least one partial quaternizing monomer (a) for cases where the monomer (a) is not quaternized.

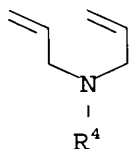
Claim 2. (Previously Presented) The method as claimed in claim 1, which treats the hair.

Claim 3. (Previously Presented) The method as claimed in claim 1, wherein the free-radically polymerizable vinyl group-containing cationic monomer (a) is at least one N-vinylimidazole derivative of the formula (I),



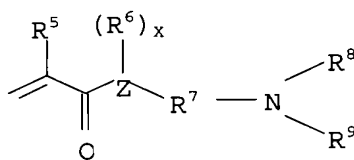
wherein the radicals R¹ to R³, independently of one another, are hydrogen, C₁-C₄-alkyl or phenyl.

Claim 4. (Withdrawn) The method as claimed in claim 1, wherein the free-radically polymerizable vinyl group-containing cationic monomer (a) is at least one dialkylamine derivative of the formula (II),



in which the radical R⁴ is C₁-C₂₄-alkyl.

Claim 5. (Withdrawn) The method as claimed in claim 1, wherein the free-radically polymerizable vinyl group-containing cationic monomer (a) is at least one dialkylaminoalkyl(meth)acrylamide and dialkylaminoalkyl (meth)acrylate of the formula (III),



in which R^5 and R^6 , independently of one another, are hydrogen or methyl, Z is a nitrogen atom where $x=1$ or an oxygen atom where $x=0$, R^7 is a linear or branched $\text{C}_1\text{--C}_{24}$ -alkylene radical, and R^8 and R^9 , independently of one another, are a $\text{C}_1\text{--C}_{24}$ -alkylene radical.

Claim 6. (Previously Presented) The method as claimed in claim 1, wherein the monomer (b) is at least one N-vinyl lactam.

Claim 7. (Canceled)

Claim 8. (Previously Presented) The method as claimed in claim 1, wherein the amount of monomer (b) in the monomer mixture ranges from 0.1 to 99 % by weight.

Claim 9. (Previously Presented) The method as claimed in claim 8, wherein the amount of monomer (b) in the monomer mixture ranges from 10 % by weight to 95 % by weight.

Claim 10. (Previously Presented) The method as claimed in claim 1, wherein the water soluble monomer (b) is an N-vinyl lactam, N-vinylacetamide, N-methyl-N-vinylacetamide, N-vinylformamide, acrylamide, methacrylamide, N,N-dimethylacrylamide, N-methylolmethacrylamide, N-vinyloxazolidone, N-vinyltriazole or an hydroxyalkyl (meth)acrylate.

Claim 11. (Previously Presented) The method as claimed in claim 1, wherein the crosslinking monomer (e) is an acrylic ester, a methacrylic ester, an allyl ether or a vinyl ether of at least a dihydric alcohol.

Claim 12. (Previously Presented) The method as claimed in claim 1, wherein the amount of crosslinking monomer (e) in the monomer mixture ranges from 0.07 to 5 % by weight.

Claim 13. (Previously Presented) The method as claimed in claim 1, wherein the amount of colloid (g) in the monomer mixture ranges from 0.5 to 20 % by weight.

Claim 14. (Previously Presented) The method as claimed in claim 1, wherein the composition is applied to the hair as a conditioning agent or a thickener.

Claim 15. (New) The method as claimed in claim 1, wherein the salt of (f) is an inorganic salt